

**AMENDMENTS TO THE CLAIMS**

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) An external fixation apparatus comprising:  
a first member attachable to a first bone segment through a pin;  
a lockable ball joint connected to the first member;  
a pivot arm connected ~~attachable~~ to the first member through the lockable ball joint, the pivot arm comprising a first end portion and a second end portion, wherein the first end portion and the second end portion are configured to translate ~~may be translated~~ transversely relative to one another and to a longitudinal axis of the pivot arm; and  
a pin clamp coupled to and rotatable about the second end portion of the pivot arm through a lockable joint, the pin clamp being attachable to a second bone segment.
2. (Original) The external fixation apparatus of claim 1, wherein the first bone segment is a tibia and the second bone segment is a talus or a calcaneus.
3. (Previously Presented) The external fixation apparatus of claim 1, wherein translation of the first and second end portions relative to the longitudinal axis of the pivot arm is possible in at least two dimensions.

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4. (Previously Presented) The external fixation apparatus of claim 1, wherein the pivot arm includes:

an upper recess and a lower recess;

a carriage that fits within the upper recess and the lower recess, the carriage including two threaded holes each receiving a worm gear; and

keybolts that operate each worm gear such that the carriage may be moved transversely to the longitudinal axis in one dimension within the upper recess and transversely to the longitudinal axis in another dimension within the lower recess.

5. (Previously Presented) The external fixation apparatus of claim 1, wherein the pivot arm has a single prong at the second end portion.

Claims 6-16 (cancelled)

17. (Original) The external fixation apparatus of claim 1, wherein the pin clamp is symmetrical or asymmetrical.

18. (Currently Amended) An external fixation apparatus comprising:  
a first member attachable to a first bone segment through a pin;  
a lockable ball joint connected to the first member;

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a pivot arm connected ~~second member attachable~~ to the first member through the lockable ball joint, the pivot arm ~~second member~~ comprising a first end portion and a second end portion, the second end portion comprising a shaft extending transversely therefrom with ~~a at least one~~ groove extending substantially around ~~at least a portion of a~~ circumference of the shaft, and wherein the first and second end portions are configured to translate transversely relative to one another and to a longitudinal axis of the pivot arm; and

a pin clamp attachable to a second bone segment and releasably snap fit ~~coupled~~ to and rotatable about the shaft extending from the pivot arm ~~second member~~, the pin clamp comprising:

a first jaw and a second jaw, the first jaw including a hole that receives the shaft; and

a locator pin that is received within the ~~at least one~~ groove of the shaft ~~to releasably couple when the pivot arm second member and the pin clamp are coupled and removed from the groove to disengage the pin clamp from the pivot arm;~~ and

~~a first bolt that passes through openings in the first and second jaws such that tightening of the first bolt interferes with the shaft and locks rotation of the pin clamp about the second member.~~

19. (Currently Amended) The external fixation apparatus of claim 18, further comprising a first bolt that passes through openings in the first and second jaws such that tightening of the first bolt interferes with the shaft and locks rotation of the pin clamp

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about the pivot arm ~~wherein the first and second end portions may be translated transversely relative to a longitudinal axis of the second member.~~

20. (Currently Amended) The external fixation apparatus of claim 18 ~~19~~, wherein translation of the first and second end portions is possible in at least two dimensions and the pivot arm ~~second member~~ further comprises:

an upper recess and a lower recess;

a carriage that fits within the upper recess and the lower recess of the pin clamp ~~second member~~, the carriage including two threaded holes each receiving a worm gear; and

keybolts that operate each worm gear such that the carriage moves ~~may be moved~~ transversely relative to the longitudinal axis in one dimension within the upper recess and transversely relative to the longitudinal axis in another dimension within the lower recess.

21. (Currently Amended) The external fixation apparatus of claim 18, wherein the locator pin is pulled to allow for release of the pivot arm ~~second member~~ from the pin clamp.

Claim 22 (cancelled)

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23. (Currently Amended) The external fixation apparatus of claim 19 ~~18~~, wherein the pin clamp further comprises second and third bolts that hold the first and second jaws together and attach and clamp pins or wires to the second bone segment.

24. (Original) The external fixation apparatus of claim 23, wherein the pin clamp further comprises openings in the first and second jaws that receive biasing elements and threaded ends of the second and third bolts.

25. (Currently Amended) An external fixation system for attaching pins or wires to at least one bone segment, the system comprising:

a first member;

a second member coupled to the first member, the second member comprising a shaft that extends transversely from an end portion of the second member and has a ~~at least one~~ groove extending substantially around ~~at least a portion of~~ a circumference of the shaft; and

a pin clamp snap fit onto the shaft of the second member, the pin clamp comprising:

a first jaw and a second jaw, ~~each of the first and second jaws having~~ openings;

~~biasing elements received within the openings, the biasing elements adapted to bias the first and second jaws toward each other;~~

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~~first and second bolts that extend into the openings in the first and second jaws, the first and second bolts adapted to compress the biasing elements and hold the first and second jaws together;~~

a hole in the first jaw configured to receive the shaft; and

a push or pull mechanism comprising a locator pin that is received within the at least one groove of the shaft to releasably couple when the pivot arm second member and the pin clamp are coupled and removed from the groove to disengage the pin clamp from the pivot arm.

Claims 26-27 (cancelled)

28. (Previously Presented) The system of claim 25, wherein the second member has at least one other end portion and the end portions may be translated transversely relative to a longitudinal axis of the second member in at least two dimensions.

29. (Previously Presented) The system of claim 25, wherein the locator pin is pushed or pulled to allow for release of the shaft from the pin clamp.

30. (Currently Amended) A method of treating a skeletal condition or injury using an external fixation apparatus, the method comprising:

(a) fixing a first member to a first side of a fracture with upper bone pins;

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(b) fixing a pin clamp to a second side of the fracture with lower bone pins;  
and

(c) coupling the pin clamp to the first member through the use of a pivot arm having first and second end portions, the first member being coupled to the first end portion through a lockable ball joint and the pin clamp being coupled to the second end portion through a second lockable joint; and

(d) adjusting the first and second end portions of the pivot arm relative to each other and transversely relative to a longitudinal axis of the pivot arm to precisely reduce the fracture.

31. (Previously Presented) The method of claim 30, further comprising rotating the pin clamp as desired for placement of the lower bone pins.

32. (Original) The method of claim 30, wherein the pin clamp is fixed prior to the fixing of the first member.

33. (Currently Amended) The method of claim 30, wherein the first and second end portions are ~~may be~~ adjusted transversely relative to the longitudinal axis of the pivot arm in at least two degrees of freedom.

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34. (Currently Amended) The apparatus of claim 1, wherein the pin clamp is releasably coupled to the pivot arm using a push/pull mechanism.

Claim 35 (cancelled)

36. (Previously Presented) The apparatus of claim 1, wherein movement of the first end of the pivot arm and movement of the second end of the pivot arm are in separate axes isolated from one another.

Claims 37-40 (cancelled)

41. (Previously Presented) The external fixation apparatus of claim 1, further comprising a carriage operatively connected to the first and second end portions.

42. (New) The system of claim 25, wherein the pin clamp further comprises:

openings in each of the first and second jaws; and

biasing elements received within the openings, the biasing elements adapted to bias the first and second jaws toward each other.



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43. (New) The system of claim 42, wherein the pin clamp further comprises first and second bolts that extend into the openings in the first and second jaws, the first and second bolts configured to compress the biasing elements and hold the first and second jaws together.

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**PETITION FOR ONE-MONTH TIME EXTENSION**

Under 37 C.F.R. § 1.136(a), Applicant hereby petitions that the period for responding to the Office Action mailed on December 19, 2006 be extended for one month, up to and including April 19, 2007. Enclosed is a charge card authorization form to cover the appropriate fee for this extension under 37 C.F.R. § 1.17.